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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/841,644  
Filing Date: April 23, 2001  
Appellant(s): ANDRADE ET AL.

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Andrade et al  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 17, 2008 appealing from the  
Office action mailed June 11, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The originally proposed rejection of claims 39 and 40 under 35 USC 101, previously indicated to be overcome by the examiner in the Advisory Action dated October 8, 2008 is reintroduced herein in modified form with regard to the amendment filed September 20, 2008, as upon further review, the entered amendment is insufficient to cure the defect, as explained in greater detail under the 'Grounds of Rejection' produced below.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,929,849	KIKINIS	7-1999
5,774,666	PORTUESI	6-1998

**(9) Grounds of Rejection**

The following grounds of rejection are applicable to the appealed claims:

Claims 1, 2, 5, 6, 8, 11, 15, 16, 18, and 39-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikinis (5,929,849, of record).

Regarding claims 1, 11, and 39, Kikinis discloses, in an interactive television (TV) environment, a method and system comprising recognizing patterns, using a pattern engine, in an unmodified broadcast data stream, accessing a repository storing attributes concerning interactive TV trigger to be inserted into the broadcast data stream and determining whether a pattern recognized by the pattern engine is to be associated with a one of the interactive TV triggers, and if so, then prior to broadcasting, automatically inserting an interactive TV trigger determined to be associated with a recognized pattern into the broadcast data stream (col. 10, lines 18-67).

Regarding claim 2, Kikinis discloses the method of claim 1, further comprising pre-inserting the interactive TV trigger into any stored content that will constitute the broadcast data stream (col. 10, lines 6-17).

Regarding claims 5, 6, 15, 16, 41, and 42 Kikinis discloses the method of claims 1, 2, and 11 wherein the [media] patterns include video and text elements (col. 10, lines 46-55).

Regarding claims 8 and 18, Kikinis discloses the method and system of claims 1 and 11, further comprising delivering the broadcast data stream with the inserted interactive TV trigger to one or more receivers for display (set top box 11, col. 5, lines 27-33).

Regarding claim 40, Kikinis discloses the medium of claim 39, further comprising passing the broadcast data stream to one or more receivers without inserting any interactive elements if the media pattern recognized by the pattern engine is not to be associated with any interactive elements (all video is broadcast regardless of whether a URL has been associated or not, col. 7, lines 28-37).

Claims 3, 4, 13, and 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis in view of Portuesi (5,774,666, of record).

Regarding claims 3, 4, 13, and 14, Kikinis discloses the method and system of claims 2 and 11, but fails to disclose the patterns include voice and other audio.

In an analogous art, Portuesi discloses a method and system for inserting interactive elements into a broadcast stream, wherein voice and other audio content are recognized and associated with an interactive element (col. 5, lines 5-12).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method and system of Kikinis to include associating the interactive elements with voice and other audio, as taught by Portuesi, for the benefit of broadening the applicability of method and system taught by Kikinis so that an advantageously wider variety of content may be associated with interactive elements.

Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis.

Regarding claims 10 and 20, Kikinis discloses the methods and system of claims 1 and 11, but fails to disclose the interactive TV trigger includes an Advanced Television Enhancement Forum (ATVEF) trigger.

It is notoriously well known in the art to enhance television broadcasts using standardized ATVEF triggers.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method and system disclosed by Kikinis to include ATVEF triggers, for the benefit of using a standardized means of content enhancement that is specifically for broadcast programming.

**NEW GROUNDS OF REJECTION**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 39 and 40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 39 and 40 are drawn to functional descriptive material encoded on a *tangible* machine-readable medium. Normally the claim would be statutory. However, paragraph 0034 of the originally filed specification defines the claimed machine-readable medium as encompassing statutory media such as memory devices, as well *non-statutory* signal-bearing media by virtue of the fact that the machine-readable medium is disclosed to store and/or *transmit* information in a form readable by a CPU, and in that the code or instructions can be represented by carrier wave signals, infrared signals, etc. Since it is possible for a signal to be transmitted on a tangible (i.e. perceptible) signal-bearing medium, such as a cable for carrier wave or light transmission, the specification thus defines a "tangible" computer-readable medium as inclusive of signal bearing media and the computer-executable instructions as inclusive of signals, *per se*. The claims are thus directed to non-statutory subject matter.

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the

**four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.**

**Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.**

**(10) Response to Argument**

The present claims are patentable over Kikinis, because Kikinis does not describe recognizing one or more patterns in an unmodified broadcast data stream and prior to broadcasting, automatically inserting interactive triggers based on this recognition in the manners presently claimed.

Appellant's sole argument against Kikinis summarily states that the manner in which bar codes are read from objects being captured by a camera is done by a separate bar code reader which is external to the broadcast system and transmits said information to the broadcast system (appeal brief, page 5, last paragraph).

First, this assertion by appellant has no support in the Kikinis disclosure. The separate devices which report information to a broadcast system, as disclosed by Kikinis, are IR transmitters or radio beacons, not bar code readers (Kikinis, col. 11, lines 1-7). It is nonsensical to assert that bar codes imprinted on player's uniforms (Kikinis, col. 11, lines 23-25) during a live broadcast of a

sporting event (Kikinis, col. 10, lines 56-67) are being read by technicians carrying separate bar code readers following the players about on the field.

Second, Kikinis very clearly discloses that the device which reads the bar codes is the camera itself. Col. 11, lines 1-9 read:

"To accomplish real-time live broadcasts with dynamic URLs, an object or a person to be URL associated simply needs to be equipped with an apparatus capable of informing **the separate imaging apparatus** of the fact of associated and position. In one embodiment this apparatus takes the form of a broadcaster, such as an infra-red transmitter or a radio beacon broadcaster.

A broadcast device as described accomplishes two essential purposes in transmission to **the imaging apparatus.**"

Thus the "camera and associated image and data processing apparatus" (Kikinis, col. 10, lines 62-64) is referred to as 'the imaging apparatus'. Kikinis then goes on to state, very clearly, that "In some embodiments bar codes on a player's clothing may be used, the codes readable by **the imaging apparatus.**" (Kikinis, col. 11, lines 23-25). From this, it is abundantly clear that it is the imaging apparatus, which includes the "camera and associated image and data processing apparatus" which performs the object recognition using a pattern engine [for locating and identifying bar codes in an unmodified broadcast data stream, as it is coming straight from the camera], as claimed by appellant.



Regarding claims 10 and 20, appellants have admitted the use of ATVEF triggers as being notoriously well known in the art. Thus, appellant's argument rests upon the validity of the argument addressed above regarding the existence of separate bar code scanners.

The present claims are patentable over Kikinis in view of Portuesi, because neither reference describes recognizing one or more patterns in an unmodified broadcast data stream and prior to broadcasting, automatically inserting interactive triggers based on this recognition, as presently claimed.

Here, appellant argues under the assumption that since Kikinis does not disclose the use of a pattern engine as claimed, then since neither does Portuesi, all of the claimed limitations have not been met (appeal brief, page 6).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Since it has been shown above the Kikinis very clearly teaches pattern recognition and automatic insertion of interactive TV triggers, said limitations are in fact met by the combination of Kikinis and Portuesi regarding claims 3, 4, 13, and 14.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section (9) above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to

reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Dominic D Saltarelli/

Examiner, Art Unit 2421

**A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:**

/Timothy P Callahan/

Director, Technology Center 2400

Conferees:

/John W. Miller/

Supervisory Patent Examiner, Art Unit 2421

/Christopher S. Kelley/

Supervisory Patent Examiner, Art Unit 2424